

Office of the Consumer Advocate

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January 28, 2021

Board of Commissions of Public Utilities
120 Torbay Road, P.O. Box 2140
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**Attention: G. Cheryl Blundon, Director of
Corporate Services / Board Secretary**

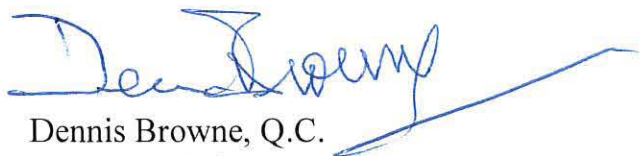
Dear Ms. Blundon:

**Re: Newfoundland Power Inc. – 2021-2025 Electrification,
Conservation and Demand Application**

Further to the above-captioned, enclosed are the Consumer Advocate's Requests for Information numbered CA-NP-001 to CA-NP-038.

If you have any questions regarding the enclosed, please contact the undersigned at your convenience.

Yours truly,



Dennis Browne, Q.C.
Consumer Advocate

Encl.
/bb

cc **Newfoundland Power Inc.**
NP Regulatory (regulatory@newfoundlandpower.com)
Kelly C. Hopkins (khopkins@newfoundlandpower.com)

Newfoundland and Labrador Hydro
NLH Regulatory (NLHRegulatory@nlh.nl.ca)
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Board of Commissioners of Public Utilities
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IN THE MATTER OF the *Public Utilities Act*
(the “Act”); and

IN THE MATTER OF an application by
Newfoundland Power Inc., pursuant to sections 58
and 80 of the Act, for the approval of an economic
test and a deferral account to provide for recovery
of costs proposed to be incurred in 2021 for customer
electrification programs; and

IN THE MATTER OF an application by
Newfoundland Power Inc., pursuant to section 41(3)
of the Act, for the approval of supplemental 2021
capital expenditures related to the construction of an
Electric Vehicle Charging Network.

**CONSUMER ADVOCATE
REQUESTS FOR INFORMATION
CA-NP-001 to CA-NP-038**

Issued: January 28, 2021

- 1 CA-NP-001 (2021 Electrification, Conservation and Demand Management Application,
2 Cover Letter, page 2 of 3, page 3 of Application Volume 1) It is stated in
3 the Cover Letter “*the Application does not contain any proposals related to*
4 *customer CDM programs.*” Page 3 of the Application states (line 11) “*The*
5 *current multi-year plan provides for customer programs to year-end 2020.*”
6 Specifically, what are NP’s current plans for gaining approval of a CDM
7 program going forward?
8
- 9 CA-NP-002 (2021 Electrification, Conservation and Demand Management Application,
10 Volume 1, page 4) It is stated (line 4) “*The customer benefits of*
11 *Newfoundland Power’s CDM programs have been substantial.*” How does
12 Newfoundland Power define “*substantial*” and please quantify? How do
13 these benefits compare to CDM experience at distribution companies
14 elsewhere?
15
- 16 CA-NP-003 (2021 Electrification, Conservation and Demand Management Application,
17 Volume 1, page 5) What is the basis for NP’s “*targeted energy savings*”?
18
- 19 CA-NP-004 (2021 Electrification, Conservation and Demand Management Application,
20 Volume 1, page 5) Over the 2009 to 2020 timeframe, energy bill savings
21 from CDM programs are estimated at \$118 million. Please provide this
22 calculation and all assumptions. What would the customer bill savings be
23 assuming the same quantities going forward in the 2021 to 2025 timeframe?
24 Please provide that calculation and all assumptions as well.
25
- 26 CA-NP-005 (2021 Electrification, Conservation and Demand Management Application,
27 Volume 1, page 5) Over the 2009 to 2020 timeframe, reduced system costs
28 from CDM programs are estimated at \$137 million. Please provide this
29 calculation and all assumptions. What would the system cost savings be
30 assuming the same quantities going forward in the 2021 to 2025 timeframe?
31 Please provide that calculation and all assumptions as well.
32
- 33 CA-NP-006 (2021 Electrification, Conservation and Demand Management Application,
34 Volume 1, page 7) It is stated (lines 1 – 3) “*The Board recommended the*
35 *Utilities and Provincial Government work together on a comprehensive and*
36 *coordinated approach to developing the most appropriate programs for the*
37 *Province.*” Later on page 7 it is stated that “*consultations*” were completed
38 with the Provincial Government (in addition to the letter referenced in
39 Footnote 20). Please file for the record the “*comprehensive and coordinated*
40 *approach*” developed by the utilities and Provincial Government. In
41 particular, please file documentation showing that Newfoundland Power
42 will take responsibility for the programs outlined in this Application.

- 1 CA-NP-007 (2021 Electrification, Conservation and Demand Management Application,
2 Volume 1, page 9) The introduction of a new low-income plan is proposed
3 for 2022 (lines 13 – 14). It will include an energy efficiency kit at no cost
4 for income-qualified customers. Table 1 (page 10) shows energy savings
5 associated with this program and Table 3 (page 13) shows the economic
6 evaluation.
- 7 (a) How will NP define an “*income-qualified*” customer?
8 (b) If the program were extended to all household customers, what would
9 be the forecast energy savings, costs and benefits of the program?
10 Would it pass the Total Resource Cost (TRC) and Program
11 Administrator Cost (PAC) tests?
12
- 13 CA-NP-008 (2021 Electrification, Conservation and Demand Management Application,
14 Volume 1, page 10) It is stated (lines 7 – 8) “*Customers are also forecast
15 to achieve a peak demand reduction of approximately 70 MW over this
16 period.*” Please provide this calculation along with all assumptions.
17
- 18 CA-NP-009 (2021 Electrification, Conservation and Demand Management Application,
19 Volume 1, pages 13 and 17) Please provide the definition of the Total
20 Resource Cost (TRC), modified Total Resource Cost (mTRC) and Program
21 Administrator Cost (PAC) tests.
22
- 23 CA-NP-010 (2021 Electrification, Conservation and Demand Management Application,
24 Volume 1, page 15) Does the energy usage shown in Table 4 relate to
25 increases in electrical energy use only?
26
- 27 CA-NP-011 (2021 Electrification, Conservation and Demand Management Application,
28 Volume 1, page 15) It is stated (lines 8 – 9) “*The Customer Electrification
29 Portfolio is also forecast to increase peak demand by 3.2 MW by 2025.*”
30 (a) Please provide this calculation and all assumptions.
31 (b) Does this assume “*managed*” charger stations? The Dunsky report notes
32 that if unmanaged, the benefits of EV adoption are negative (page 32 of
33 325). If managed, please explain how the charger stations will be
34 managed.
35 (c) Please explain how “*at-home*” charging will be managed in the absence
36 of time-of-use rates since at-home charging is likely to represent a
37 significant component of electricity consumption for electric vehicle
38 charging (Volume 2, Schedule D, page 3 of 5).
39 (d) Has NP considered development of a time-of-use rate specifically for
40 customers with electric vehicle charging? If so, would such customers
41 be required to make a contribution to metering necessary to measure
42 consumption during different time periods?

- 1 CA-NP-012 (2021 Electrification, Conservation and Demand Management Application,
2 Volume 1, page 16) Table 5 includes general expenses. Will NP be hiring
3 additional staff to support its proposed electrification effort? If so, how
4 many and at what cost?
5
- 6 CA-NP-013 (2021 Electrification, Conservation and Demand Management Application,
7 Volume 1, page 17) Has NP consulted the Province's oil and gas industry
8 about its electrification programs? Have oil and gas companies applied for
9 intervenor status?
10
- 11 CA-NP-014 (2021 Electrification, Conservation and Demand Management Application,
12 Volume 1, page 20) NP estimates revenues from charging stations at
13 \$15/hour. Footnote 49 indicates that this is consistent with Hydro estimates.
14 (a) How does this compare to revenues in other Provinces?
15 (b) Will this cover the entire cost of supply including generation,
16 transmission and distribution costs?
17 (c) Will these charging stations compete with other charging station entities
18 in the Province?
19 (d) What are other charging station entities charging their customers?
20 (e) Are these entities private or government owned?
21 (f) Is NP's charging station proposal likely to put these other charging
22 station entities out of business?
23 (g) Are other charging station entities participating as intervenors?
24
- 25 CA-NP-015 (2021 Electrification, Conservation and Demand Management Application,
26 Volume 1, page 21) Please provide the calculation in Table 7 for years 2
27 and 3 of the Program. Is this calculation comparable to that in other
28 Provinces? Please provide examples.
29
- 30 CA-NP-016 (2021 Electrification, Conservation and Demand Management Application,
31 Volume 1, page 21) Does the proposed deferral account have an offsetting
32 component for increased revenues from electricity sales? Please explain.
33 Please provide a detailed calculation of the net cost deferral calculation
34 including all assumptions based on estimates for 2022.
35
- 36 CA-NP-017 (2021 Electrification, Conservation and Demand Management Application,
37 Volume 1, page 22) Will the proposed electrification program, CDM
38 program and the deferral accounts be addressed and adjusted as necessary
39 at the GRA to be filed by June 1, 2021 (see Footnote 52)?
40
- 41 CA-NP-018 (2021 Electrification, Conservation and Demand Management Application,
42 Volume 1, page 23) Please provide details of the \$550,000 in federal
43 funding and if approved, how it is likely to impact the assessment of costs

1 estimated in the first year of the deferral account. Please file a copy of the
2 federal program for the record.

- 3
4 CA-NP-019 (2021 Electrification, Conservation and Demand Management Application,
5 Volume 1, page 25, Footnote 56) It is stated “*access to charging and*
6 *concerns about reliability of range*” are among the highest barriers to EV
7 ownership in the Province.
8 (a) How will the concern about reliability of range be overcome?
9 (b) What other concerns are there and how does NP intend to overcome
10 these concerns; i.e., vehicle model availability and maintenance as
11 discussed in the Dunsky report, page 30 of 325?
12 (c) Please file the risk assessment undertaken by NP with respect to its
13 electrification program, and more specifically, its proposed
14 expenditures for the charging stations. How is the fact that 86% of
15 electric vehicle owners primarily charge at home taken into
16 consideration (Volume 2, Schedule D, page 3 of 5) in the risk
17 assessment?
18

- 19 CA-NP-020 (2021 Electrification, Conservation and Demand Management Application,
20 Volume 1, page 25, Footnote 59) It is understood that utility or government
21 intervention is necessary to promote charging stations since the business
22 case is not strong enough for third-party actors.
23 (a) Why has Newfoundland Power chosen to intervene?
24 (b) Has a study been undertaken to determine what entity might best deliver
25 the benefits of vehicle electrification? For example, has a study shown
26 that Newfoundland Power is the preferred administrator of vehicle
27 electrification over, for example, a Government-owned entity such as
28 Hydro, or a private sector entity selected by Government through a
29 competitive solicitation; i.e., the request for proposals might specify
30 construction, operation and maintenance, or construction with a separate
31 request for proposals for operation and maintenance? Have such studies
32 been undertaken elsewhere?
33 (c) What benefits does Newfoundland Power bring to bear on this program
34 over others?
35 (d) How does the program proposed by NP mesh with that proposed by
36 Hydro?
37 (e) Has Hydro indicated that NP is in a better position to implement an
38 electric vehicle program than itself?
39 (f) Why are both Hydro and NP developing charging stations rather than
40 one or the other?
41 (g) Would there not be savings associated with having a single entity
42 responsible for charging station infrastructure development during the
43 initial stages?

- 1 CA-NP-021 (2021 Electrification, Conservation and Demand Management Application,
2 Volume 1, Exhibit 2, Figure 1) Please confirm that it will be 7 years (2027)
3 before the electrification program has an appreciable impact on rate
4 mitigation. Why 7 years?
5
- 6 CA-NP-022 (2021 Electrification, Conservation and Demand Management Application,
7 Volume 1, Exhibit 2, page 3) It is stated “*This equates to \$100 in reduced*
8 *electricity charges that year for an average residential customer with*
9 *electric heating.*”
10 (a) What is the expected savings for an average NP customer?
11 (b) What is the expected savings for an NP customer who does not have
12 electric heating?
13
- 14 CA-NP-023 (2021 Electrification, Conservation and Demand Management Application,
15 Volume 1, Exhibit 2, page 8) It is stated “*The specific sites for each location*
16 *will be selected through a public application process.*” Please provide
17 details of how the public application process might work. What are the
18 expected costs for land and how will the costs be incorporated in the
19 deferral account?
20
- 21 CA-NP-024 (2021 Electrification, Conservation and Demand Management Application,
22 Volume 1, Exhibit 2, page 6) It is stated “*Newfoundland Power will own*
23 *and operate the Electric Vehicle Charging Network. Annual operating and*
24 *maintenance requirements associated with electric vehicle charging*
25 *stations typically include: (i) replacing air filters; (ii) rechecking torque on*
26 *connectors; and (iii) inspecting and cleaning charging cables, the kiosk and*
27 *civil works.*”
28 (a) How will the cost of electricity to supply the charging stations be
29 recovered?
30 (b) Does NP plan to acquire charging stations from other entities such as
31 Hydro?
32
- 33 CA-NP-025 (2021 Electrification, Conservation and Demand Management Application,
34 Volume 1, Exhibit 2, page 6) It is stated “*Newfoundland Power’s planned*
35 *customer rates for fast chargers are consistent with the rates charged by*
36 *Newfoundland and Labrador Hydro.*”
37 (a) Are Hydro and NP costs to supply charging stations the same?
38 (b) Do these rates reflect Newfoundland Power’s cost of supply?
39 (c) Will non-participating customers be subsidizing participating
40 customers; i.e., those who purchase electric vehicles?
41
- 42 CA-NP-026 (2021 Electrification, Conservation and Demand Management Application,
43 Volume 1, Exhibit 2, Appendix A) Note C states “*The revenue figures are*

1 based on a change from the rates approved by the Board in Order No. P.U.
2 31 (2019) Amended and annual increases in electricity rates of 2.25%.”

3 (a) What are the actual rates assumed in each year of the analysis?

4 (b) What is the basis for assuming these rates and the annual rate increases
5 of 2.25%?

6 (c) What are the expected rates in each year of the analysis if the
7 Application is approved by the Board? Please show the expected
8 impacts of each component of the program included in the Application.

9 (d) Will the rate mitigation impacts that derive from the proposals in the
10 Application benefit ratepayers or the Government?
11

12 CA-NP-027 (2021 Electrification, Conservation and Demand Management Application,
13 Volume 1, Exhibit 2, Appendix A) Do the incremental system costs include
14 the costs of distribution? Does NP anticipate the need for additional
15 distribution infrastructure costs to supply the charging stations? How will
16 this be taken into consideration in the charging station site analysis?
17

18 CA-NP-028 (2021 Electrification, Conservation and Demand Management Application,
19 Volume 2, page 3) It is stated “*based on a residential retail rate of*
20 *13.5¢/kWh and an export sales value of 4.2¢/kWh, each additional kWh*
21 *consumed domestically will provide a benefit of 9.3¢.*” Footnote 2 indicates
22 that this calculation does not include utility investments such as distribution
23 system upgrades and supply capacity considerations. Why not? How would
24 inclusion of these costs affect the comparison?
25

26 CA-NP-029 (2021 Electrification, Conservation and Demand Management Application,
27 Volume 2, page 4) It is stated “*32 jurisdictions provide incentives for*
28 *vehicles or chargers*”. Are similar incentive programs being offered or
29 being considered in the Province? If so, please provide details. If not, why
30 not?
31

32 CA-NP-030 (2021 Electrification, Conservation and Demand Management Application,
33 Volume 2, Footnote 59) The footnote discusses penetration of heat pumps
34 replacing electric space heating in the residential sector. The Dunskey report
35 (page 28 of 325) states “*customer’s economics do favour heat pumps in*
36 *existing electric resistance heated households*”.

37 (a) How much is the forecast penetration of heat pumps impacting capacity
38 and energy demand in the Province?

39 (b) Would a financial incentive to defray capital costs of such conversions
40 make economic sense going forward? Would such a program be
41 considered a CDM or electrification program?

42 (c) Please provide a cost/benefit analysis for a typical customer with
43 electric resistance heating converting to a heat pump.

- 1 (d) Based on the Dunsky and Newfoundland Power analyses, would
 2 conversion of electric resistance heating to heat pumps be a customer's
 3 best opportunity for energy savings? How do such conversions compare
 4 to other programs considered by Newfoundland Power?
 5
- 6 CA-NP-031 (2021 Electrification, Conservation and Demand Management Application,
 7 Volume 2, page 10) Does demand management potential take into
 8 consideration transmission constrained (area supply) considerations (i.e.,
 9 Avalon Peninsula), and if so, how? If not, why not?
 10
- 11 CA-NP-032 (2021 Electrification, Conservation and Demand Management Application,
 12 Volume 2, page 11) Are there other benefits to offering time-of-use rates,
 13 such as customer choice, fairness and equity in the rate structure? Were
 14 these other benefits considered in the analysis?
 15
- 16 CA-NP-033 (2021 Electrification, Conservation and Demand Management Application,
 17 Volume 2, page 27) Please provide a revised Figure 6 based on the
 18 assumption that the program starts in 2022.
 19
- 20 CA-NP-034 (2021 Electrification, Conservation and Demand Management Application)
 21 Please provide a table summarizing all current and proposed programs
 22 relating to electrification that will be administered by NP, Hydro, the
 23 Provincial Government and the Federal Government.
 24
- 25 CA-NP-035 (2021 Electrification, Conservation and Demand Management Application)
 26 Please explain the following:
 27 (a) Are/will Hydro and Newfoundland Power be in competition to provide
 28 charging station services in the Province?
 29 (b) Will Hydro and NP be in competition with private sector entities
 30 providing vehicle charging services?
 31 (c) Is it appropriate under Provincial Law that Newfoundland Power enter
 32 into a "*for profit*" business such as vehicle charging and collect the costs
 33 of the business from ratepayers? Should vehicle charging, if approved
 34 by the Board, be hived off as a separate unregulated subsidiary of NP?
 35 (d) Would it be prudent for Hydro and NP to make application to the Board
 36 to deal with this charging station issue before expenditures are incurred?
 37
- 38 CA-NP-036 (2021 Electrification, Conservation and Demand Management Application)
 39 The power system has been developed for the benefit of ratepayers and paid
 40 for by ratepayers. How will ratepayers be reimbursed for use of the power
 41 system by a "*for profit*" vehicle charging business?
 42
- 43 CA-NP-037 (2021 Electrification, Conservation and Demand Management Application)
 44 Why is the capital expenditure in this Application being viewed within the

1 context of a supplemental capital expenditure when in about 4 months NP
 2 will be submitting a General Rate Application (June 1, 2021 according to
 3 Footnote 52) and in about 5 months NP will be submitting its 2022 Capital
 4 Budget Application?

5 (a) Would review of a capital budget expenditure such as this not be more
 6 fully informed and understood by the parties and the Board when
 7 viewed within the context of all NP costs as would be the case in a GRA,
 8 and/or all capital budget expenditures as would be the case in a capital
 9 budget application? In fact, is this not why we have GRAs and Capital
 10 Budget Applications?

11 (b) It is understood that reviewing this capital program at the upcoming
 12 GRA or Capital Budget Application would delay deployment of the
 13 vehicle charging program by up to a year. How important is this given
 14 that there will not be any significant rate mitigation benefits from the
 15 program until 2027 (Volume 1, Exhibit 2, Figure 1)?

16
 17 CA-NP-038 (2021 Electrification, Conservation and Demand Management Application)
 18 Is it the best time to embark on a capital program which is not an essential
 19 service in the midst of a poor Provincial economy worsened by the Covid-
 20 19 global pandemic? Please explain.

DATED at St. John's, Newfoundland and Labrador, this 28th day of January, 2021.

Per:



Dennis Browne, Q.C.

Counsel for the Consumer Advocate

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